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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,861	05/22/2001	Paul Anthony Kirkby	476-1991.1	1079
23644	7590	10/14/2005	EXAMINER	
BARNES & THORNBURG			HSU, ALPUS	
P.O. BOX 2786			ART UNIT	
CHICAGO, IL 60690-2786			PAPER NUMBER	
			2665	

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 09/862,861	Applicant(s) KIRKBY ET AL.	
	Examiner Alpus H. Hsu	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5-12 and 27-32 is/are allowed.
- 6) ☒ Claim(s) 4, 13-26 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

2. Claims 4, 13-20, 22-26, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, lines 1-2, "said price acceptability" lacks antecedent basis.

In claim 13, line 5, it is unclear as to what "where insufficient resources are available" means. Do you mean that "when the transport layer does not have sufficient resources to support the request for service"? Same rejection also applies to claim 33, lines 5-6.

In claim 17, line 2, "each transport layer" has no clear antecedent since a multi-layer hierarchical transport structure does not guaranteed a plurality of transport layers. Same rejection also applies to claim 19, line 2, claim 20, line 2.

In claim 22, the claim is rejected as being a hybrid claim. To be more specific, it is unclear as to whether an apparatus or a method is being claimed since the claim includes the elements for the apparatus claim and method steps for the method claim.

In claim 23, lines 1-2, 4, it is confusing for reciting "multiple resource-allocation transport layers" and "a multi-wavelength transport layer". Are they referring to the same element or the multiple resource-allocation transport layers include the multi-wavelength transport layer?

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 13 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by

JOHANSSON et al. in U.S. Patent No. 6,466,559.

Regarding claims 13 and 33, by broadly interpreting a hierarchical structure of multi levels data structures having plural pools of resource units as the claimed hierarchy of transport layers, JOHANSSON et al. discloses a method and software in machine readable form for allocating resources in a communications network having a hierarchy of transport layers, each transport layer having its own resource capacity, by detecting within the transport layer whether that transport layer has sufficient resources to support a request for service, and, when it is determined that there is insufficient resources available to support a request for service, automatically requesting further resources from one or more other transport layers (see abstract, col. 3, line 41 to col. 5, line 23).

5. Claim 21 is rejected under 35 U.S.C. 102(e) as being anticipated by KADENGAL in U.S. Patent No. 6,928,053.

Regarding claim 21, KADENGAL discloses a layered resource-allocation transport system comprising: a first transport layer comprising a topology manager (112-1 – 112-3) arranged to provide an indication of required resources and an indication of willingness to pay for the required resources; a second transport layer comprising a service manager (104-1 – 104-3) arranged to provide the resources responsive to a comparison between the willingness to pay and a price of the required resources (see abstract, col. 11, line 15 to col. 12, line 36).

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 14, 15, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JOHANSSON et al. in U.S. Patent No. 6,466,559 in view of KADENGAL in U.S. Patent No. 6,928,053.

Regarding claims 14, 15, 17-20, JOHANSSON et al. differs from the claims, in that, it does not disclose the determination of resource price with the network resource allocation for admission of user/customer to the network, which is well known parameter for bandwidth allocation and call admission control. KADENGAL, for example, from the similar field of endeavor, teaches the determination of resource price in combination with the network resource allocation for admission of user/customer to the network (see abstract, col. 11, line 15 to col. 12, line 36), which can be easily adopted by one of ordinary skill in the art into the method and

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system in JOHANSEN et al. to provide the balance between resource allocation and QoS to further improve the system efficiency.

9. Claims 1-3, 5-12, 27-32 are allowed.

10. Claims 4, 16, 22-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Holender, Stelliga, Forslow, Willars et al., and Zambre et al. are all cited to show the common feature of multi-layer hierarchical network utilizing resource/bandwidth allocation for optimizing network efficiency similar to the claimed invention.

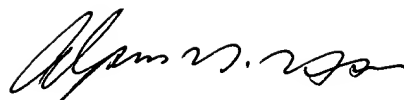
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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AHH

A handwritten signature in black ink, appearing to read 'Alpus H. Hsu'.

Alpus H. Hsu  
Primary Examiner  
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